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| EXAMINER | |
|---|---|
| ONUAKU, CHRISTOPHER O | |
| ART UNIT | PAPER NUMBER |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/684,516 | TSUKIDATE, RYOTA | |
| | Examiner | Art Unit | |
| | CHRISTOPHER ONUAKU | 2621 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *13 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *42-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *51 and 52* is/are allowed.

6)☒ Claim(s) *42-44 and 46* is/are rejected.

7)☒ Claim(s) *45 and 47-50* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 2/13/08 have been fully considered but they are not persuasive.

Applicant argues that Lemmons fails to teach or even suggest the second filter means operated in cooperation with the first filter means. Examiner disagrees.

In response, examiner reads filtering broadly as selecting. The tuning circuitry 72 (claimed first filter means) of Schein selects the program guide which includes television signals, program schedule information, operational parameters and software modules. The control unit 74 stores the program schedule information in a memory 76 (see col.7, lines 20-40). Schein further discloses that the remote control 78 (claimed second filter means) may also be used by the viewer to invoke the interactive program guide (see 7, lines 58-60). The interactive program guide can be used by the viewer to select programs of interest for display on display 84. The interactive program guide may also be used to program a video cassette recorder (VCR 88). The control unit 74 preferably exerts control over the VCR 88 through the use of an infrared transmitter 90 which communicates with an infrared receiver of the VCR 88. Control preferably includes starting and stopping recording by the VCR 88 (see col.8, lines 10-20). Here remote control 78 may be used by the viewer to select a desired program, for viewing or

recording, using the program information disclosed in the program guide received by the tuning means 72.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmons et al (US 6,266,814) in view of Na et al (US 6,366,731).

Regarding claim 42, Lemmons et al teach interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying a restrictive search selection criterion and a non-restrictive sort attribute to program schedule information, comprising:

a) operating means for enabling an operation to be input by a user (see Fig.2 and remote control 78; col.7, line 20 to col.8, line 10);

b) input means for receiving channel data of a channel including a selected program that the user has selected as a program to be recorded through said operation means (see Fig.2 and the tuning circuitry 72; col.7, line 42 to col.8, line 20);

c) first filter means for selecting, from said channel data, video and/or audio data for said selected program and program information for said selected program (see Fig.2 and tuning circuitry 72; col.7, lines 20- 41); and

d) second filter means for extracting, from said program information selected by said first filter means, only program information to be recorded other than a portion that is no longer necessary for recording (see Fig.2, control unit 74; and at least col.8, lines 10-20);

e) video data recording means for recording said video data for said selected program (see Fig.2; VCR 88; col.8, lines 10-30); and

f) program information recording means for recording said extracted program information portion (see Fig.2; control unit 74 and memory 76; col.7, lines 20-41).

Lemmons et al disclose wherein control unit 74 stores the program schedule information, operational parameters, and software modules in a memory 76 (see col.7, lines 20-40). However, Lemmons fails to explicitly disclose program information recording means for recording the extracted program information portion and location information indicative of a recording location of said recorded video and/or audio data for said selected program. Official Notice is taken that it is well known that telecasting systems including interactive program guide do have such capabilities. It would have been obvious to record the extracted program information portion and the location information indicative of the recording location of recorded video and/or audio data in a program information recording means in order, for example, to facilitate the extracting of the program data during a reproducing function.

Furthermore, Lemmons et al fail to explicitly disclose the processing of program that constitutes a video data and a corresponding audio data in the Lemmons broadcasting telecasting system. Na et al teach a digital audio/video apparatus,

including a multimedia system in which a plurality of digital A/V apparatuses are connected to each other via a digital interface, wherein a program is constituted of video information, audio information and user data information (see col.3, lines 45-67). The processing of the audio signal corresponding to a video signal provides the desirable advantage of facilitating the clearer disclosure of the video signal a viewer is watching. It would have been obvious to add the audio signal corresponding to the video signal in the program of the Lemmons system, as taught by Na et al, since the processing of the audio signal with the corresponding video signal provides the desirable advantage of facilitating the clearer disclosure of the video signal a viewer is watching.

With Lemmons modified with Na, it would have been obvious to record the audio data with the video data and the location on a recording means where the audio and video data are recorded in order to maintain the efficiency of the Lemmons system.

Regarding claim 43, Lemmons et al discloses program information displaying means for displaying said recorded extracted program information portions of said recorded programs, means for prompting the user to select, from the displayed program information portions, one of said recorded program for play, and means, responsive to the user selecting said one of said recorded programs, for playing said selected program to provide video and/or audio output (see col.20, lines 12-22 and col.22, line 50 to col.23, line 23).

4. Claims 44&46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmons et al in view of Na et al, and further in view of Schein et al (US 6,412,110).

Regarding claim 44, Lemmons et al and Na et al fail to explicitly disclose wherein said audio-visual recording means includes multiplexing means for multiplexing, for said selected program, said video and audio data and said extracted program information portion and location information into a multiplexed data stream, data recording means for recording said multiplexed data stream, and recording frequency adjusting means for adjusting a recording frequency of said extracted program information portion and location information.

Schein et al teach television schedule information, including a system and method for displaying a television program guide on a television screen, wherein in a DBS system, in addition to video signals other bitstreams encoding information such audio VBI (vertical blanking information data such as closed caption and teletex), program guide information, and conditional access information are provided as separate bitstreams, multiplexed into a composite bit stream, and modulated onto a carrier signal (see col.10, lines 4-14). Here Schein et al teach the principle of multiplexing different data signals into a composite bit stream for further processing. It, therefore, would have been obvious to multiplex other multiple data signal such as video and audio data, extracted program information portion and location information into a composite bit stream, in order to facilitate the further processing of the multiple data signal as a single composite signal.

It would have been obvious to further modify Lemmons by realizing Lemmons with a multiplexing means that can multiplex multiple data signals into a composite bit stream, as taught by Schein, since multiplexing multiple data signal, such as video and audio data, extracted program information portion and location information into a composite bit stream facilitates the further processing of the composite signal as a single bit stream.

Lemmons discloses a VCR 88 (see Fig.2, VCR 88; col.8, lines 10-30) for recording data. With Lemmons modified with Schein et al, it would have been an obvious engineering design consideration to record the composite signal composed of video and audio data, extracted program information portion and location information, for example, onto the VCR 88, as desired.

Furthermore, Lemmons et al and Na et al fail to explicitly disclose recording frequency adjusting means for adjusting a recording frequency of said extracted program information portion and location information. Schein further teaches in Fig.21 that when the user clicks on the recording glyph 208 an action menu appears. In the Figure, the pointer is placed over the “Record once … “ entry which is highlighted. The text in the contextual help window 218 tells the user that clicking will record the program once. This is the only option that appears because record once is the only frequency available for this program. For other programs it may be appropriate to display “Record Daily”, “Record Weekly”, “Record entire miniseries . . . “, etc (see col.134, lines 22-33). Here, Schein teaches more than one type of recording frequency. Therefore, inherently,

Schein system includes the claimed “recording frequency adjusting means”, in order for the Schein system to select any one of the different recording frequencies.

With Schein added to the Lemmons system, it would have been obvious that the recording frequency adjusting means of Schein would also be added to the Lemmons system. It, therefore, would have been obvious that the Lemmons system would then be able to adjust the recording frequency of said extracted program information portion and location information, for example, in order to maintain the efficiency of the Lemmons system.

Regarding claim 46, Schein further teaches wherein the recording frequency adjusting means comprises:

a) monitoring means for monitoring a rate of transmission of the multiplexed data stream (as discussed in claim 44 above, Schein teaches the principle of “recording frequency adjusting means” since the Schein system can record a text, for example, at different recording frequencies, e.g., “Record Once”, “Record Daily”, “Record Weekly”, the monitoring of the transmission rate of the multiplexed data stream in Schein is inherent in order for the system to efficiently adjust to the commanded recording frequency, e.g., “Record Once”, “Record Daily”, “Record Weekly”), and

b) means for raising and/or lowering the recording frequency (as discussed in claim 44 above, Schein teaches the principle of “recording frequency adjusting means” since the Schein system can record a text, for example, at different recording frequencies, e.g., “Record Once”, “Record Daily”, “Record Weekly”, which inherently

includes raising the recording ("Record Daily") or lowering the recording frequency ("Record Weekly"), in order for the Schein system to maintain its efficiency.

***Allowable Subject Matter***

5. Claims 51&52 are allowable over the prior art of record.

6. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 51, the invention relates to a broadcasting system, including a multimedia recorder with recorded program management functions based on EPG data, a TV receiver provided with such a recorder, and a system for supporting such functions in a broadcasting equipment.

The closest references Lemmons et al (US 6,266,814) disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying a restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, and Na et al (US 6,366,731) teach a digital audio/video apparatus, including a multimedia system in which a plurality of digital A/V apparatuses are connected to each other via a digital.

However, Lemmons et al and Na et al fail to explicitly disclose a terminal device capable of recording broadcast information, where the terminal device further comprises wherein the program information displaying unit includes a unit, operative in case any recorded extracted program information portion includes a piece of information to which

a valid period is assigned, that displays the any recorded extracted program information portion while excluding said piece of information if a current time is outside of the valid period.

Regarding claim 52, the invention relates to a broadcasting system, including a multimedia recorder with recorded program management functions based on EPG data, a TV receiver provided with such a recorder, and a system for supporting such functions in a broadcasting equipment.

The closest references Lemmons et al (US 6,266,814) disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying a restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, and Na et al (US 6,366,731) teach a digital audio/video apparatus, including a multimedia system in which a plurality of digital A/V apparatuses are connected to each other via a digital interface.

However, Lemmons et al and Na et al fail to explicitly disclose a terminal device capable of recording broadcast information, where the terminal device further comprises wherein the program information recording unit includes a monitoring unit that monitors whether the extracted program information portion related to the selected program is adapted to change contents thereof during a broadcast period of the selected program, and a changed contents recording unit, operative wherein the extracted program information portion related to the selected program being received has changed

contents thereof at a certain time during the broadcast period, that records a start time of the selected program, the certain time and contents of the extracted program information portion during a period from the start time to the certain time, the recorded start time and the recorded certain time being expressed either in relative time measured from the start time, or as a location on said recording media.

7. Claims 45-50 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter.

Regarding claim 45, the invention relates to a broadcasting system, including a multimedia recorder with recorded program management functions based on EPG data, a TV receiver provided with such a recorder, and a system for supporting such functions in a broadcasting equipment.

The closest references Lemmons et al (US 6,266,814) disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying a restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, and Na et al (US 6,366,731) teach a digital audio/video apparatus, including a multimedia system in which a plurality of digital A/V apparatuses are connected to each other via a digital.

However, Lemmons et al and Na et al fail to explicitly disclose a terminal device capable of recording broadcast information, where the terminal device further comprises wherein said program information displaying means includes means, operative in case any recorded extracted program information portion includes a piece of information to which a valid period is assigned, for displaying said any recorded extracted program information portion while excluding said piece of information if a current time is outside of said valid period.

Regarding claim 47, the invention relates to a broadcasting system, including a multimedia recorder with recorded program management functions based on EPG data, a TV receiver provided with such a recorder, and a system for supporting such functions in a broadcasting equipment.

The closest references Lemmons et al (US 6,266,814) disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying a restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, and Na et al (US 6,366,731) teach a digital audio/video apparatus, including a multimedia system in which a plurality of digital A/V apparatuses are connected to each other via a digital interface.

However, Lemmons et al and Na et al fail to explicitly disclose a terminal device capable of recording broadcast information, where the terminal device further comprises means for monitoring whether said extracted program information portion related to said

selected program is adapted to change contents thereof during a broadcast period of said selected program, and changed contents recording means, operative wherein the extracted program information portion related to said selected program being received has changed contents thereof at a certain time during said broadcast period, for recording a start time of said selected program, said certain time and contents of said extracted program information portion during a period from said start time to said certain time, said recorded start time and said recorded certain time being expressed either in relative time measured from said start time, or as a location on said recording media.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Onuaku whose telephone number is 571-272-7379. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Onuaku/

Examiner, Art Unit 2621

/ROBERT CHEVALIER/

Primary Examiner, Art Unit 2621

May 25, 2008.